HQS-107US

Appln. No.: 10/810,768

Amendment Dated April 11, 2007

Reply to Office Action of October 11, 2006

<u>Amendments to the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

- 1-15. (Cancelled).
- 16. (Previously Presented) A system for delivering humidified gas to a patient, said system comprising:
 - a supply unit configured to deliver humidified gas;

a delivery tube assembly having a delivery tube with a proximal end and a distal end, said delivery tube assembly also having a fitting positioned at said proximal end of said delivery tube and releasably coupled to said supply unit, said delivery tube assembly being configured to transfer heat to the humidified gas received from said supply unit; and

a nasal cannula releasably coupled to the distal end of the delivery tube to receive humidified gas from the delivery tube of the delivery tube assembly.

- 17. (Previously Presented) The system recited in claim 16, said supply unit being configured to deliver humidified gas at a flow rate of about 1 liter per minute to about 8 liters per minute.
- 18. (Previously Presented) The system recited in claim 16, said supply unit being configured to deliver humidified gas at a flow rate above about 20 liters per minute.
 - 19. (Cancelled).
- 20. (Previously Presented) The system recited in claim 16, further comprising a releasable coupling configured to couple said nasal cannula to said delivery tube assembly.
- 21. (Previously Presented) The system recited in claim 20, said releasable coupling comprising an adapter.
- 22. (Previously Presented) The system recited in claim 16, said fitting of said delivery tube assembly being configured for releasable connection to said supply unit.

Appln. No.: 10/810,768 HQS-107US

Amendment Dated April 11, 2007

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23. (Previously Presented) The system recited in claim 16, said supply unit having a gas inlet configured to receive gas.

- 24. (Previously Presented) The system recited in claim 23, further comprising means for receiving gas from a source of gas and for delivering the gas to said gas inlet of said supply unit.
- 25. (Previously Presented) The system recited in claim 24, said gas receiving means comprising a tube.
- 26. (Previously Presented) The system recited in claim 25, said gas receiving means further comprising a fitting configured for connection to the source of gas.
- 27. (Previously Presented) The system recited in claim 16, said supply unit having a liquid inlet configured to receive supplemental liquid.
- 28. (Previously Presented) The system recited in claim 27, further comprising a source of supplemental liquid coupled to said liquid inlet.
- 29. (Previously Presented) The system recited in claim 28, said source of supplemental liquid comprising a water supply bag.
- 30. (Currently Amended) A method for delivering humidified gas to a neonatal patient, said method comprising the steps of:

connecting a delivery tube to a supply unit configured to deliver humidified gas; coupling a nasal cannula to the delivery tube; and

delivering humidified gas from the supply unit to the neonatal patient through a cannula at a flow rate of about 1 liter per minute to about 8 liters per minute and at a relative humidity in a range of about 95% to about 100%.

31. (Currently Amended) A method for assisting respiration in a neonatal patient comprising delivering heated and humidified air to a nasal passageway of the neonatal patient through a nasal cannula at a flow rate of about 1 liter per minute to about 8 liters per minute and at a relative humidity in a range of about 95% to about 100%.

HQS-107US

Appln. No.: 10/810,768

Amendment Dated April 11, 2007

Reply to Office Action of October 11, 2006

32. (Previously Presented) A method for delivering humidified gas to a patient, said method comprising the steps of:

releasably connecting a fitting of a proximal end of a delivery tube to a supply unit; releasably coupling a nasal cannula to a distal end of the delivery tube;

delivering humidified gas from the supply unit, through the delivery tube, and to the nasal cannula for delivery to the patient; and

delivering only the humidified gas through the cannula.

33. (Currently Amended) A method for delivering humidified gas to a nasal passageway of a neonatal patient using a supply unit to deliver humidified gas, a delivery tube assembly configured to transfer heat to the humidified gas received from the supply unit and having a delivery tube and a fitting connected to the supply unit, and a nasal cannula coupled to the delivery tube assembly, said method comprising the step of:

delivering a humidified gas from the supply unit, through the delivery tube assembly and into the nasal cannula at a flow rate of about 1 liter per minute to about 8 liters per minute and at a relative humidity in a range of about 95% to about 100%.

- 34. (Currently Amended) A system for delivering humidified gas to a patient, the system comprising:
 - a supply unit configured to deliver breathing gas; and
- a delivery tube releasably coupled to the supply unit, the delivery tube being configured to transfer heat to the breathing gas received from the supply unit,

wherein the breathing gas is humidified by fluid that has flowed through <u>and reverses</u> <u>direction in the delivery tube.</u>

35. (Previously Presented) The system according to claim 34, wherein the supply unit provides fluid for humidifying the breathing gas.

HQS-107US

Appln. No.: 10/810,768

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- 36. (Previously Presented) The system according to claim 34, wherein the fluid flow through the system is configured such that the fluid heats the breathing gas prior to humidifying the breathing gas.
- 37. (Previously Presented) The system according to claim 34, further comprising a nasal cannula coupled to the delivery tube.
- 38. (Previously Presented) The system according to claim 37, wherein the nasal cannula is releasably coupled to the delivery tube.
- 39. (Previously Presented) A warming and humidifying system for a breathing gas comprising:

a fluid supply;

a means for heating the breathing gas with fluid from the fluid supply; and

a means for humidifying the breathing gas with the fluid after the fluid has heated the breathing gas.

40-41. (Canceled).

42. (Previously Presented) A method of delivering a breathing gas to a patient, the method comprising the steps of:

coupling a delivery tube to a supply unit;

coupling a nasal cannula to the delivery tube;

delivering breathing gas from the supply unit to the delivery tube such that the breathing gas flows in a first direction through the delivery tube;

heating the breathing gas with a fluid in the delivery tube such that the fluid flows in at least the first direction through the delivery tube; and

delivering the breathing gas from the delivery tube to the nasal cannula for delivery to the patient.

Appln. No.: 10/810,768 HQS-107US

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43. (Previously Presented) The method according to claim 42, further comprising the step of humidifying the breathing gas with the fluid.

- 44. (Previously Presented) The method according to claim 43, wherein humidifying the gas with the fluid is performed after the fluid heats the breathing gas.
- 45. (Previously Presented) The method according to claim 42, further comprising flowing the fluid in a second direction, opposite the first direction, through the delivery tube.